a measurement controller for adjusting the orientation of the workpiece orientation adjustment stage; and

a measurement means being controlled by the measurement controller,

the measurement controller comprising: a surface texture measurement controller for measuring the surface texture of the workpiece; a X-axis coordinates input means for inputting X-axis coordinates at a measurement start point and a measurement end point in adjusting the orientation of the workpiece orientation adjustment stage; a Y-axis coordinates input means for inputting Y-axis coordinates at a measurement start point and a measurement end point in adjusting the orientation of the workpiece orientation adjustment stage; a swivel correction angle calculation means for calculating a swivel angle (an angle within the X-Y plane relative to X-axis) from the x-axis coordinates inputted by the x-axis coordinates input means and determining a swivel correction angle (an absolute quantity relative to the X-axis) based on the swivel angle and the Y-axis coordinates inputted by the Y-axis coordinate input means; and a swivel correction angle display for displaying the swivel correction angle calculated by the swivel correction angle calculation means,

the measurement means comprising: a swivel adjustment means which an operator can manually operate for rotating the workpiece orientation adjustment stage within the X-Y plane to adjust orientation thereof in accordance with the swivel correction angle displayed on the swivel correction angle display; and a Y-axis adjustment means which the operator can manually operate for adjusting orientation of the workpiece orientation adjustment stage by displacing the workpiece orientation adjustment stage in the Y-axis direction.

4. (Three Times Amended) An orientation-adjustment method of a workpiece using a surface texture measuring machine, the workpiece having an edge line, the workpiece orientation adjustment stage being movable in a measurement direction (X-axis direction) and in a direction (Y-axis direction) orthogonal with the X-axis direction within a horizontal

plane and rotatable in a X-Y plane, the workpiece orientation adjustment stage being capable of seesawing in a direction (Z-axis direction) orthogonal with the X-axis direction within a perpendicular plane, and the surface texture of the workpiece being scanned by a sensor movable in the X-axis direction after adjusting orientation of the workpiece orientation adjustment stage, the orientation adjusting method comprising the steps of:

measuring positions of the workpiece relative to the sensor at a measuring start point and a measurement end point;

calculating orientation of the workpiece from the positions to determine an angle of the workpiece to the measurement direction to obtain an absolute quantity of an orientation correction amount based on the angle;

displaying or printing the orientation correction amount; and

operating an adjustment means of the workpiece orientation adjustment stage in accordance with the displayed or printed orientation correction amount to correct the orientation of the workpiece.

8. (Three Times Amended) An leveling device for a surface texture measuring machine, the surface texture measuring machine comprising: a displacement detecting means movable in a measurement direction (X-axis direction) for measuring displacement (z-axis direction) on a surface of a workpiece; and a moving means for moving the displacement detecting means in the measurement direction to scan a displacement signal from the displacement detecting means, the surface texture measuring machine adjusting an amount of a workpiece stage relative to a base line as a movement locus of the displacement detecting means, the leveling device comprising:

a fulcrum for rotatably supporting the workpiece stage during measurement and adjustment and a point of action working relative to the fulcrum;

a manipulated variable calculation means for scanning the surface of the workpiece by the displacement detecting means and for calculating a center locus, a inclination of the surface of the workpiece, of measurement data based on a displacement signal from the displacement detecting means to calculate a operation amount at the point of action relative to the fulcrum required for paralleling the center locus with the base line of the moving means;

an output means for displaying, printing or outputting as data the operation amount; and

an inclination adjustment means which an operator can manually operate to adjust the inclination of the workpiece stage relative to the X-axis on X-Z plane for manually adjusting inclination of a predetermined amount, wherein the operation amount is calculated by the manipulated variable calculation means from an inclination reference position where an inclination line connecting the fulcrum and the point of action of the inclination adjustment means is parallel with the base line of the moving means.

REMARKS

Claims 1-8 and 10-12 are pending. By this Amendment, claims 1, 4 and 8 are amended. Reconsideration based on the above amendments and the following remarks is respectfully requested.

The attached Appendix includes marked-up copies of each rewritten claim (37 C.F.R. §1.121(c)(1)(ii)).

Applicants thank Examiner Cygan for the courtesies extended to Applicants' representatives during the October 29 personal interview. The substance of the personal interview is incorporated into the Remarks below.